

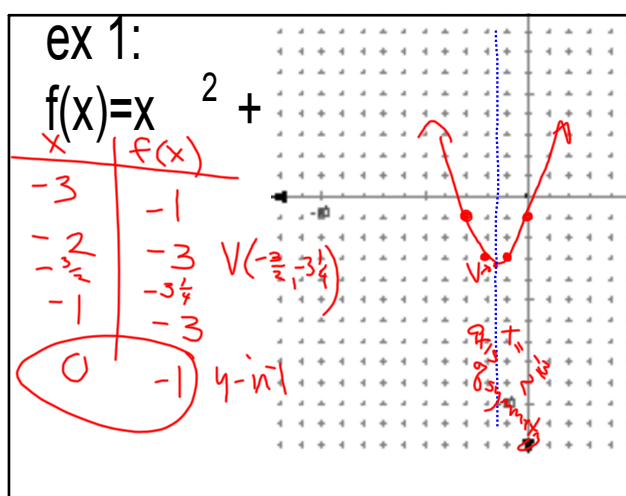
Ch 6 Quadratic Functions and Inequalities

6.1 Graphing Quad. Fn.s

$$f(x) = ax^2 + bx + c$$

$$a \neq 0$$

parabola



Vertex $\left(\frac{-b}{2a}, \right)$

Equation of axis of symmetry

$$x = \frac{-b}{2a}$$

y-intercept

$$(0, c)$$

ex:2 $2^2 - 4(2) + 2 = -2$

$$f(x) = x^2 - 4x + 2$$

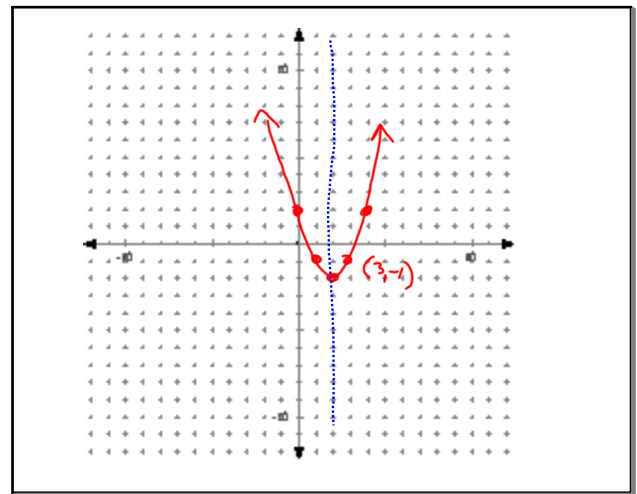
$V(2, -2)$ $\frac{4}{2(1)} = 2$ $-\frac{b}{2a}$

A.O.S $x = 2$

y-int $(0, 2)$

mirror pt $(4, 2)$

$(1, -1)$



Minimum pt

a is pos.

Maximum pt

a is neg.

HW

p291

17-27 odd

33-38